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FILE 'USPAT' ENTERED AT 15:27:50 ON 02 SEP 1999
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* U. S. P A T E N T T E X T F I L E *
* * * * *
* THE WEEKLY PATENT TEXT AND IMAGE DATA IS CURRENT *
* THROUGH AUGUST 31, 1999 *
* * * * *

=> s Mv-1-Lu(10A)packag?

21203 MV
2494171 1
5360 LU
18 MV-1-LU
(MV(W)1(W)LU)
194271 PACKAG?
L1 0 MV-1-LU(10A)PACKAG?

=> s Mv-1-Lu(20A)producer?

21203 MV
2494171 1
5360 LU
18 MV-1-LU
(MV(W)1(W)LU)
14082 PRODUCER?
L2 0 MV-1-LU(20A)PRODUCER?

=> s Mv-1-Lu

21203 MV
2494171 1
5360 LU
L3 18 MV-1-LU
(MV(W)1(W)LU)

=> d 13,1-18

1. 5,932,474, Aug. 3, 1999, Target sequences for synthetic molecules; Roger Y. Tsien, et al., 435/320.1 [IMAGE AVAILABLE]
2. 5,929,222, Jul. 27, 1999, Expression of a foamy virus envelope protein; Dirk Lindemann, et al., 536/23.4; 435/69.7 [IMAGE AVAILABLE]
3. 5,856,185, Jan. 5, 1999, Method for making reflection defective retroviral vectors for infecting human cells; Harry E. Gruber, et al., 435/372, 350, 357, 363, 366, 369; 536/23.4, 23.72 [IMAGE AVAILABLE]
4. 5,844,085, Dec. 1, 1998, Cloning and expression of simian transforming growth factor .beta.1; Anthony F. Purchio, et al., 530/351; 424/85.1, 198.1; 530/380, 386, 399 [IMAGE AVAILABLE]
5. 5,817,491, Oct. 6, 1998, VSV G pseudotyped retroviral vectors;

Jiing-Kuan Yee, et al. 435/456; 424/93.2; 435/320.1, 365, 366, 465
[IMAGE AVAILABLE]

6. 5,780,436, Jul. 14, 1998, Peptide compositions with growth factor-like activity; Rajendra S. Bhatnagar, et al., 514/18, 17; 530/329, 330 [IMAGE AVAILABLE]

7. 5,772,995, Jun. 30, 1998, Compositions and methods for enhanced tumor cell immunity in vivo; Habib Fakhrai, et al., 424/93.21; 435/6, 7.23, 69.1, 91.1, 91.4, 325; 530/389.7 [IMAGE AVAILABLE]

8. 5,766,945, Jun. 16, 1998, 10A1 Retroviral packaging cells and uses thereof; A. Dusty Miller, 435/235.1, 320.1, 325 [IMAGE AVAILABLE]

9. 5,716,832, Feb. 10, 1998, Packaging cells; Jack R. Barber, et al., 435/235.1, 325 [IMAGE AVAILABLE]

10. 5,686,292, Nov. 11, 1997, Hepatocyte growth factor receptor antagonist antibodies and uses thereof; Ralph H. Schwall, et al., 424/143.1, 133.1; 435/334; 530/387.3, 387.7, 388.1, 388.2, 388.22, 388.8, 388.85, 389.1, 389.7 [IMAGE AVAILABLE]

11. 5,661,127, Aug. 26, 1997, Peptide compositions with growth factor-like activity; Rajendra S. Bhatnagar, et al., 514/16; 530/329 [IMAGE AVAILABLE]

12. 5,591,624, Jan. 7, 1997, Retroviral packaging cell lines; Jack R. Barber, et al., 435/366, 320.1, 369 [IMAGE AVAILABLE]

13. 5,496,800, Mar. 5, 1996, Growth inhibitory factor from urogenital sinus; David R. Rowley, 514/12, 21; 530/324 [IMAGE AVAILABLE]

14. 5,304,541, Apr. 19, 1994, Methods using novel chimeric transforming growth factor-.beta.1/.beta.2; Anthony F. Purchio, et al., 514/12; 530/399; 930/120 [IMAGE AVAILABLE]

15. 5,244,793, Sep. 14, 1993, TGF-.beta.1/.beta.2: a novel chimeric transforming growth factor-beta; Anthony F. Purchio, et al., 435/69.4, 69.7, 320.1, 360; 530/399; 536/23.51 [IMAGE AVAILABLE]

16. 5,221,620, Jun. 22, 1993, Cloning and expression of transforming growth factor .beta.2; Anthony F. Purchio, et al., 435/360, 69.1, 69.5, 69.7, 235.1; 530/350; 536/23.4, 23.5, 23.51 [IMAGE AVAILABLE]

17. 5,219,752, Jun. 15, 1993, Process for continuously culturing adherent animal cells; Yoshiharu Takazawa, et al., 435/394, 70.3 [IMAGE AVAILABLE]

18. 5,196,334, Mar. 23, 1993, Urogenital sinus derived growth inhibitory factor; David R. Rowley, et al., 435/377; 514/2, 21; 530/324, 339, 828 [IMAGE AVAILABLE]

=> d kwic,3,5

US PAT NO: 5,856,185 [IMAGE AVAILABLE]

L3: 3 of 18

DETDSC:

DETD(352)

VECTOR FROM HP CELLS
CELL LINE SPECIES .beta.-Gal TITRE

3T3 MURINE 1.0 .times. 10.sup.4

PA317	MURINE	1.0 .times. 10.sup.4
Mv-1-Lu	MINK	5.0 .times. 10.sup.3
FRh1	MACAQUE	<10
HT1080	HUMAN	<10
HeLa	HUMAN	<10
WI 38	HUMAN	<10
DETROIT 557	HUMAN.	.

US PAT NO: 5,817,491 [IMAGE AVAILABLE]

L3: 5 of 18

DETDESC:

DETD(92)

VECTOR FROM HP	CELLS	
CELL LINE	SPECIES	b-Gal TITRE

3T3	MURINE	1.0 .times. 10.sup.4
PA317	MURINE	1.0 .times. 10.sup.4
Mv-1-Lu	MINK	5.0 .times. 10.sup.3
FRh1	MACAQUE	<10
HT1080	HUMAN	<10
HeLa	HUMAN	<10
WI 38	HUMAN	<10
DETROIT 557	HUMAN.	.

=> d kwic,8,9,12

US PAT NO: 5,766,945 [IMAGE AVAILABLE]

L3: 8 of 18

DETDESC:

DETD(27)

Replication-competent . . . virus spread, and were then used in interference assays and to produce amphotropic helper virus for infection of other cells. **Mv 1 Lu** mink cells (ATCC CCL 64) producing gibbon ape leukemia virus (GALV) SEATO strain were obtained from Dr. M. Eiden, National. . .

US PAT NO: 5,716,832 [IMAGE AVAILABLE]

L3: 9 of 18

DETDESC:

DETD(92)

LINE	SPECIES	.beta.-Gal TITRE
------	---------	------------------

3T3	MURINE	1.0 .times. 10.sup.4
PA317	MURINE	1.0 .times. 10.sup.4
208F/C5	RAT	4.0 .times. 10.sup.4
Mv-1-Lu	MINK	5.0 .times. 10.sup.3
FRhL	MACAQUE	<10
HT1080	HUMAN	<10
HeLa	HUMAN	<10
WI 38	HUMAN	<10
DETROIT 551	HUMAN.	.

US PAT NO: 5,591,624 [IMAGE AVAILABLE]

L3: 12 of 18

DETDESC:

DETD(92)

LINE	SPECIES	beta.-Gal TITRE
3T3	MURINE	1.0 .times. 10.sup.4
PA317	MURINE	1.0 .times. 10.sup.4
208F/C5	RAT	4.0 .times. 10.sup.4
Mv-1-Lu	MINK	5.0 .times. 10.sup.3
FRhL	MACAQUE	<10
HT1080	HUMAN	<10
HeLa	HUMAN	<10
WI 38	HUMAN	<10
DETROIT 551	HUMAN.	.

=> s retrovir?(5A)vector? and serum(5A)resistant

6524 RETROVIR?
80397 VECTOR?
2147 RETROVIR?(5A)VECTOR?
51146 SERUM
228630 RESISTANT
132 SERUM(5A)RESISTANT
L4 21 RETROVIR?(5A)VECTOR? AND SERUM(5A)RESISTANT

=> s 14 and non-primate?

925067 NON
4371 PRIMATE?
114 NON-PRIMATE?
(NON(W)PRIMATE?)
L5 5 L4 AND NON-PRIMATE?

=> d 15,1-5

1. 5,871,997, Feb. 16, 1999, Methods and compositions for protecting **retroviral vector** particles and producer cells from inactivation by complement via reduction of the expression or recognition of galactose alpha (1,3) galactosyl epitopes; Russell P. Rother, et al., 435/235.1, 238, 239, 325 [IMAGE AVAILABLE]
2. 5,869,035, Feb. 9, 1999, Methods and compositions for inducing complement destruction of tissue; Charles J. Link, Jr., et al., 424/93.7, 93.21, 277.1; 435/320.1; 514/44 [IMAGE AVAILABLE]
3. 5,849,991, Dec. 15, 1998, Mice homozygous for an inactivated .alpha. 1,3-galactosyl transferase gene; Anthony J. F. d'Apice, et al., 800/8; 435/320.1, 354, 463; 800/17, 18, 21, 22, 24 [IMAGE AVAILABLE]
4. 5,705,732, Jan. 6, 1998, Universal donor cells; Peter J. Sims, et al., 800/17; 536/23.1; 800/14, 18 [IMAGE AVAILABLE]
5. 5,573,940, Nov. 12, 1996, Cells expressing high levels of CD59; Peter J. Sims, et al., 435/362; 424/93.21; 435/69.1 [IMAGE AVAILABLE]

=> d 15,1,kwic

US PAT NO: 5,871,997 [IMAGE AVAILABLE] L5: 1 of 5
TITLE: Methods and compositions for protecting **retroviral vector** particles and producer cells from inactivation by complement via reduction of the expression or recognition of galactose alpha (1,3) galactosyl epitopes

ABSTRACT:
Methods and compositions are provided for facilitating gene therapy

procedures involving the transduction of target cells with **retroviral vector** particles in the presence of complement containing body fluids. The reduction of levels of galactose alpha (1,3) galactosyl epitopes on the **retroviral vector** particles and/or the blockade of antibody binding to such epitopes have been found to render the particles less sensitive to. . .

SUMMARY:

BSUM(2)

The present invention relates to gene therapy mediated by the transduction of primate cells by **retroviral vector** particles (RVVPs) and, in particular, to methods and compositions for modulating the recognition of the RVVPs by the humoral immune. . .

SUMMARY:

BSUM(15)

These properties and capabilities have led to the development of **retroviral vectors**, **retroviral** packaging and producer cells, which are typically prepared from cells of murine origin, and **retroviral vector** particles (collectively referred to as **retroviral** transduction systems) as efficient means of stably introducing exogenous genes of interest into mammalian cells. Certain retroviruses have been engineered. . .

SUMMARY:

BSUM(18)

Retroviral vector particles are particularly useful for genetically modifying mammalian cells, including human cells, because the efficiency with which they can transduce. . . than that achievable using other systems of introducing exogenous genetic material into cells. Other advantages associated with the use of **retroviral vector** particles as gene therapy agents include stable expression of transferred genes, capacity to transfer large genes, and lack of cellular cytotoxicity. Additionally, **retroviral vector** articles may be constructed so as to be capable of transducing mammalian cells from a wide variety of species and. . .

SUMMARY:

BSUM(19)

Successful gene transfer by transduction with a **retroviral vector** particle (RVVP) requires: 1) incorporation of a gene of interest into a **retroviral vector**; 2) packaging of a **vector**-derived viral genome into a RVVP; 3) binding of the RVVP to the target cell; 4) penetration of at least the. . .

SUMMARY:

BSUM(21)

Delivery . . . of methods have been used experimentally to deliver genetic material into cells. Most research has focused on the use of **retroviral** and adenoviral **vectors** for gene delivery. As discussed above, RVVPs are particularly attractive because they have the ability to stably integrate transferred gene. . . are very efficient in stably transducing a high percentage of target cells. Accordingly most clinical protocols for gene therapy use **retroviral vectors** (see, for example, Miller, 1992; and Anderson, 1992).

SUMMARY:

BSUM(25)

III. The Humoral Immune System and **Retroviral Vector** Particles

SUMMARY:

BSUM(34)

Co-pending . . . No. 08/098,944 ("the '944 application"), filed Jul. 28, 1993 in the name of James M. Mason and entitled "Pre-binding of **Retroviral Vector** Particles with Complement Components to Enable The Performance of Human Gene Therapy In Vivo," discusses the use of free Clq. . .

SUMMARY:

BSUM(64)

It is an additional object of the present invention to provide agents and methods that inhibit the inactivation of **retroviral vector** particles by complement and thus allow the effective administration of transducing **retroviral vector** particles to host cells in the presence of host body fluids.

SUMMARY:

BSUM(78)

In . . . the administration of inhibitory molecules that reduce the binding of antibodies to such epitopes found on producer cells and on **retroviral vector** particles. In accordance with the invention, such administration results in the inhibition of natural antibody-mediated activation of the complement cascade.

SUMMARY:

BSUM(79)

The invention further provides pharmaceutical compositions containing such inhibitor molecules together with producer cells and/or **retroviral vector** particles. In certain embodiments the pharmaceutical compositions are distributed as articles of manufacture comprising the pharmaceutical compositions of the invention. . .

DRAWING DESC:

DRWD(2)

FIG. 1 shows **retroviral vector** particle survival (i.e., retention of ability to transduce target cells) in serum from various primates as indicated. These experiments were. . .

DRAWING DESC:

DRWD(3)

FIG. 2 shows **retroviral vector** particle survival in human serum in the presence of glucose or galactose alpha (1,3) galactose. These experiments were carried out. . .

DRAWING DESC:

DRWD(11)

FIG. 10 shows **retroviral vector** particle survival in human serum. **Retroviral** particles were packaged and produced in murine GPE86 cells or in CHO-DG44 cells with either an amphotrophic or xenotrophic envelope.. . .

DETDESC:

DETD(2)

The present invention relates to gene therapy using **retroviral vector** particles. For ease of reference, the following abbreviations will be used in the discussion that follows: "IM" (inhibitor molecule) refers. . . .

DETDESC:

DETD(4)

General discussions of packaging cells, producer cells, **retroviral vector** particles and gene transfer using such particles can be found in various publications including PCT Patent Publication No. WO 92/07943, . . . al., 1989; Morgenstern and Land, 1990; Eglitis, 1991; Miller, 1992; Mulligan, 1993, and Ausubel, et al., 1992. The manipulation of **retroviral** nucleic acids to construct packaging **vectors** and packaging cells is discussed in, for example, Ausubel, et al., Volume 1, Section III (units 9.10.1-9.14.3), 1992; Sambrook, et. . . . 92/07943, WO 92/14829, and WO 93/14188. Once a packaging cell line has been established, producer cells are generated by introducing **retroviral vectors** into the packaging cells. Examples of such **retroviral vectors** are found in, for example, Korman, et al., 1987, Proc. Natl. Acad. Sci. USA, 84:2150-2154; Miller and Rosman, Biotechniques, 7:980-990, . . . U.S. Pat. Nos. 4,405,712, 4,980,289, and 5,112,767; and PCT Patent Publications Nos. WO 85/05629, WO 90/02797, and WO 92/07943. The **retroviral vector** includes a psi site and one or more exogenous nucleic acid sequences selected to perform a desired function, e.g., an. . . .

DETDESC:

DETD(5)

Many applications of gene therapy using **retroviral vector** particles (RVVPs) are known and have been extensively reviewed (see, for example, Boggs, 1990; Kohn, et al., 1989; Lehn, 1990,

DETDESC:

DETD(9)

In . . . cells may be preferred. Such RVVPs are disclosed in copending U.S. patent applications Ser. Nos. 08/181,335 and 08/182,612, both entitled "**Retroviral Vector** Particles for Transducing Non-Proliferating Cells" and both filed Jan. 14, 1994. These patent applications also discuss specific procedures suitable for producing packaging **vectors** and **retroviral vectors** as well as the use of such vectors to produce packaging cells and producer cells, respectively.

DETDESC:

DETD(10)

II. Obtaining Protection of **Retroviral Vector** Particles and Producer Cells from Inactivation by the Humoral Immune System:

DETDESC:

DETD(11)

In order to be effective, **retroviral vector** particles (RVVPs), and, in some instances retroviral producer cells (PCs), need to be protected from (inactivation or destruction) by the action. . .

DETDESC:

DETD(13)

In . . . with this embodiment of the present invention, protected packaging cells, protected PCs, and protected RVVPs derived therefrom are obtained using **non-primate** cell lines lacking expression of the galactose alpha (1,3) galactosyl epitope. Preferred cell lines for such selection include certain Chinese. . .

DETDESC:

DETD(29)

In . . . discussed above under the subheading "RVVPs". The producer cells of the invention are then prepared by the introduction of a **retroviral vector** into the packaging cells of the invention.

DETDESC:

DETD(40)

IV. . . . these techniques involve the removal of target cells of interest from a patient, incubation of the target cells with the **retroviral vector** particles, and reintroduction of the transduced target cells into the patient. Various procedures can be applied to the target cells. . . the like. Delivery of nucleic acid molecules of interest may also be accomplished in vivo by administration of the protected **retroviral vector** particles to a patient.

DETDESC:

DETD(41)

In connection with such in vivo or ex vivo administration, **retroviral vector** particles can be pre-treated in accordance with the procedures discussed in co-pending application Ser. No. 08/098,944, filed Jul. 28, 1993, in the name of James M. Mason and entitled "Pre-binding of **Retroviral Vector** Particles with Complement Components to Enable The Performance of Human Gene Therapy In Vivo."

DETDESC:

DETD(42)

Similarly, . . . Rother, Scott A. Rollins, James M. Mason, and Stephen P. Squinto and copending U.S. patent application Ser. No. 08/278,630, entitled "**Retroviral Vector** Particles Expressing Complement Inhibitor Activity", filed Jul. 21, 1994 in the names of James M. Mason and Stephen P. Squinto. . .

DETDESC:

DETD(45)

The . . . some cases, the drug delivery system will be designed to

optimize the biodistribution and/or pharmacokinetics of the delivery of the **retroviral vector** particles. See, for example, Reington's Pharmaceutical Sciences, supra, Chapters 37-39. For example, the compositions can be incorporated in vesicles composed. . .

DETDESC:

DETD(47)

The . . . of the prescribing physician. Dosage levels for human subjects are generally between about 10×10^6 and 10×10^{14} colony forming units of **retroviral vector** particles per patient per treatment. Producer cells are provided in amounts of at least 10×10^3 to 10×10^4 cells per treatment. . .

DETDESC:

DETD(50)

The construction of **retroviral vectors** directing the expression of such a galactose alpha (1,3) galactosyl transferase can be accomplished by methods well known to those of skill in the art (see above). Such **retroviral vectors** can be used to transfect packaging cells to yield producer cells providing RVVPs that direct the expression of the transferase. . .

DETDESC:

DETD(59)

Retrovirus Titer Assay. The **retroviral vector** pLXSN (Miller and Buttimore, 1986), containing the neomycin resistance gene for selection, was utilized to examine the ability of type. . .

DETDESC:

DETD(62)

Retrovirus Killinr Assav in Primate Sera. **Retroviral vector** particles, including those from PA317 or PA317/H-transferase cells, (approximately 500 CFU) were incubated for 30 min. at 37.degree. C. in. . .

DETDESC:

DETD(70)

Generation . . . flanked the start and stop codons of the molecule. The cDNA was subcloned as an EcoRI fragment into the pLXSN **retroviral vector**. Amphotropic **retroviral** particles were produced through the intermediate ecotropic packaging cell line GPE86 (Markowitz et al.1988). Briefly, GPE86 cells were transfected with. . .

DETDESC:

DETD(73)

Inactivation of LXSN **retroviral vector** Particles in primate sera.

DETDESC:

DETD(76)

Inactivation of LXSN **retroviral vector** particles in the presence of added sugars

DETDESC:

DETD(77)

LXSN **retroviral vector** particles were prepared as described above. Aliquots of a 40% solution of human serum in HBSS were then incubated for. . . particles were titered on NIH/3T3 cells as described above. The results of these titrations were calculated as fold increase in **retroviral vector** particle survival relative to the control samples, and are set forth in FIG. 2. These results demonstrate that galactose alpha-1,3 galactose, but not glucose, substantially reduces the inactivation of the **retroviral vector** particles by human serum at all concentrations used.

DETD(DESC:

DETD(89)

CHO-DG44 . . . plasmid Gag-Pol-gpt versus the puromycin selection plasmid CPURO (see copending U.S. patent applications Ser. Nos. 08/181,335 and 08/182,612, both entitled "**Retroviral Vector** Particles for Transducing Non-Proliferating Cells" and both filed Jan. 14, 1994.) which imparts resistance to the antibiotic puromycin. The cells. . .

DETD(DESC:

DETD(90)

The . . . marker plasmid pTH which confers resistance to hygromycin (see copending U.S. patent applications Ser. Nos. 08/181,335 and 08/182,612, both entitled "**Retroviral Vector** Particles for Transducing Non-Proliferating Cells" and both filed Jan. 14, 1994, both of which are incorporated herein by reference). Hygromycin-resistant clones are isolated as described above and then transfected with a **retroviral vector** plasmid containing a gene of therapeutic interest to generate cells that are expanded to produce cultures containing packaging lines, or. . . cultures of a test packaging cell line. RVVPs collected in viral supernatants from stable CHO-DG44 and BHK-21 packaging cells are **resistant** to human **serum** and complement-mediated virolysis when compared to RVVPs packaged in murine NIH 3T3 derived packaging cell lines such as PA317 or. . .

DETD(DESC:

DETD(102)

Downregulation of the .alpha.Galactosyl Epitope on PA317 Producer Cells Results in the Production of **Serum-Resistant** Retrovirus.

DETD(DESC:

DETD(108)

Concomitantly, . . . data indicate that downregulation of .alpha.galactosyl epitope expression on producer cells results in the release of retroviral particles that are **resistant** to inactivation by human **serum** complement.

DETD(DESC:

DETD(181)

Miller, A. D. and Rosman, G. J.: Improved **retroviral vectors** for gene transfer and expression. Biotechniques 7 (1989) 980-990.

DETD(DESC:

DETD(193)

Rother, R. P., Squinto, S. P., Mason, J. M. and Rollins, S. A.:
Protection of **retroviral vector** particles in human blood through
complement inhibition. Hum.Gene Ther. in press (1995) (in press)

CLAIMS:

CLMS(1)

What is claimed is:

1. A method for protecting **retroviral vector** particles (RVVPs)
from inactivation by human or Old World primate body fluids comprising
treating said RVVPs with a glycolytic enzyme. . .

CLAIMS:

CLMS(3)

3. A **retroviral vector** particle produced by the method of claim
1.

CLAIMS:

CLMS(4)

4. A method for protecting **retroviral vector** particles (RVVPs)
from inactivation by human or Old World primate body fluids comprising
treating an RVVP producer cell line that. . .

CLAIMS:

CLMS(7)

7. A **retroviral vector** particle produced by the method of claim
4.

CLAIMS:

CLMS(8)

8. A culture of **retroviral vector** particle (RVVP) producer cells
derived from non-human, non-Old World primate cells wherein said cell
culture has been incubated in a. . .

CLAIMS:

CLMS(11)

11. A **retroviral vector** particle isolated from the culture of
claim 8.

HILIGHT set on as ''

HILIGHT set on as ''

? begin 5,6,55,155,156,154,312,399,biotech,biosci

Set	Items	Description
?	s	serum and human? and resistant

Processing
Processing
Processing
Processing
Processing
Processing
Processed 10 of 36 files ...
Processing
Processing
Processed 20 of 36 files ...
Completed processing all files

2239092 SERUM
23619236 HUMAN?
1122456 RESISTANT
S1 18740 SERUM AND HUMAN? AND RESISTANT
? s s1 and retrovir?

18740 S1
411075 RETROVIR?
S2 511 S1 AND RETROVIR?
? s s2 and retrovir? vector?

511 S2
0 RETROVIR? VECTOR?
S3 0 S2 AND RETROVIR? VECTOR?
? s s2 and vector?

511 S2
818140 VECTOR?
S4 175 S2 AND VECTOR?
? s s4 and galactosyl

175 S4
20708 GALACTOSYL
S5 12 S4 AND GALACTOSYL
? rd s5

>>>Duplicate detection is not supported for File 60.

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>>>Record 266:259794 ignored; incomplete bibliographic data, not retained -
in RD set
...completed examining records
S6 5 RD S5 (unique items)
? d s6/3/1-5

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DIALOG(R)File 5:BIOSIS Previews(R)
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10108341 BIOSIS NO.: 199698563259
A novel mechanism of **retrovirus** inactivation in **human**
serum mediated by anti-alpha-galactosyl natural antibody.

AUTHOR: Rother Russe P(a); Fodor William L; Springh Jeremy P; Birks
Carl W; Setter Eva andrin Mauro S; Squinto Stephe; Rollins Scott A
AUTHOR ADDRESS: (a)Alexion Pharmaceuticals, Dep. Molecular Development, 25
Science Park, Suite 360, New Haven, CT 0, USA

JOURNAL: Journal of Experimental Medicine 182 (5):p1345-1355 1995
ISSN: 0022-1007
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English

- end of record -

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Display 6/3/2 (Item 1 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
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07919647 Genuine Article#: 224AQ No. References: 33

Title: **Human serum-resistant retroviral**
vector particles from **galactosyl** (alpha 1-3)

galactosyl containing nonprimate cell lines

Author(s): Mason JM (REPRINT); Guzowski DE; Goodwin LO; Porti D; Cronin KC
; Teichberg S; Pergolizzi RG

Corporate Source: NYU, SCH MED, DEPT RES, VIRAL VECTOR LAB, N SHORE UNIV

HOSP, 350 COMMUNITY DR/MANHASSET//NY/11030 (REPRINT); NYU, SCH MED, DEPT

LABS, N SHORE UNIV HOSP/MANHASSET//NY/11030

Journal: GENE THERAPY, 1999, V6, N8 (AUG), P1397-1405

ISSN: 0969-7128 Publication date: 19990800

Publisher: STOCKTON PRESS, HOUNDMILLS, BASINGSTOKE RG21 6XS, HAMPSHIRE,
ENGLAND

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

- end of record -

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Display 6/3/3 (Item 2 from file: 34)
DIALOG(R)File 34:SciSearch(R) Cited Ref Sci
(c) 1999 Inst for Sci Info. All rts. reserv.

07390561 Genuine Article#: 159JQ No. References: 21

Title: Complement and anti-alpha-**galactosyl** natural antibody-mediated
inactivation of murine **retrovirus** occurs in adult **serum** but
not in umbilical cord **serum**

Author(s): Agrawal RS; Karhu K; Laukkanen J; Kirkinen P; YlaHerttuala S;
Agrawal YP (REPRINT)

Corporate Source: YALE UNIV, SCH MED, DEPT PATHOL, 310 CEDAR ST, POB

208023/NEW HAVEN//CT/06520 (REPRINT); KUOPIO UNIV HOSP, AI VIRTANEN

INST/KUOPIO//FINLAND/; KUOPIO UNIV HOSP, DEPT OBSTET &

GYNECOL/KUOPIO//FINLAND/; KUOPIO UNIV HOSP, DEPT CLIN

CHEM/KUOPIO//FINLAND/

Journal: GENE THERAPY, 1999, V6, N1 (JAN), P146-148

ISSN: 0969-7128 Publication date: 19990100

Publisher: STOCKTON PRESS, HOUNDMILLS, BASINGSTOKE RG21 6XS, HAMPSHIRE,
ENGLAND

Language: English Document Type: ARTICLE (ABSTRACT AVAILABLE)

- end of record -

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Display 6/3/4 (Item 1 from file: 370)
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00507632 (USE 9 FOR FULLTEXT)

Cell Surface Trafficking of Fas: A Rapid Mechanism of TNF-3-Mediated
Apoptosis
Bennett, Martin; Macdonald, Kirsty; Chan, Shiu-Wan; Luzio, J. Paul; Simari,
Robert; Weissberg, Peter
M. Bennett, K. Macdonald, S.-W. Chan, P. Weissberg, Department of Medicine,
University of Cambridge, Addenbrooke's Hospital, Cambridge CB2 2QQ, UK.
J. P. Luzio, Department of Clinical Biochemistry, University of
Cambridge, Addenbrooke's Hospital, Cambridge CB2 2QQ, UK. R. Simari,
Department of Cardiovascular Diseases, Biochemistry and Molecular
Biology, Mayo Clinic and Foundation, Rochester, MN 55905, USA.
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00507481 (USE 9 FOR FULLTEXT)
Inhibition of Xenoreactive Natural Antibody Production by **Retroviral**
Gene Therapy

Bracy, Jennifer L.; Sachs, David H.; Iacomini, John
J. L. Bracy, Cellular and Molecular Biology Program, Allegheny University
of the Health Sciences, 2900 Queen Lane, Philadelphia, PA 19129, USA, and
Transplantation Biology Research Center, Massachusetts General Hospital
and Harvard Medical School, Building 149-5210, 13th Street, Boston, MA
02129, USA. D. H. Sachs and J. Iacomini, Transplantation Biology Research
Center, Massachusetts General Hospital and Harvard Medical School,
Building 149-5210, 13th Street, Boston, MA 02129, USA.

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